

REMARKS

Reconsideration of the above-identified application is respectfully requested. Claims 1-17 are pending in the application, with Claim 17 added by way of this amendment. Claims 1, 2, 6, 7, and 9-15 were rejected under 35 U.S.C. § 102(b) and Claim 8 was rejected under 35 U.S.C. § 103(a) in a Final Office Action mailed July 24, 2003 (hereinafter "Office Action"). Claims 3-5 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants thank Examiner for concurring with applicants in noting the allowability of Claim 16. The specification and Claims 1, 7, 14, and 15 are amended as indicated above.

**I. Amendments to the Specification**

Applicants have amended the specification to conform the Summary of the Invention section to the claims, as amended by way of this Amendment and Response. Applicants assert that no new material has been added in the amendments to the specification.

**II. Rejection of Claims 1, 2, 6, 7, and 9-15 Under 35 U.S.C. § 102(b)**

Claims 1, 2, 6, 7, and 9-15 were rejected under 35 U.S.C. § 102(b) in the Office Action as being anticipated by U.S. Patent No. 4,392,009, issued to Napoli (hereinafter "Napoli"). Applicants respectfully disagree.

Amended Claims 1, 14, and 15 are clearly distinguishable from the invention taught by Napoli. At paragraph 6 of the Office Action, the Office Action states that Napoli discloses that the electrical connection formed between the panel (11) and the junction box (30) is achieved by bringing together the panel (11) and the connector box (30) by connecting connector (19) and the junction box (30). As can be seen from Figure 1 of Napoli, however, the connections of aperture 33 are not present in that aperture at the time of urging the end section 16 into the side

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channels 13. At Col. 3, lines 17-19, of Napoli, it is stated that "*three electrical leads are, therefore, fed through aperture 33, as illustrated in Figure 2.*" [Emphasis added.] Therefore, Napoli clearly discloses an arrangement in which the end piece 16 is inserted into the side channels and then, in **a subsequent and distinct second operation** (i.e., the feeding through aperture 33 of the leads and making the connection) an electrical connection is made between the leads and the bus bar 19. There is no disclosure in Napoli of the electrical connection being made as a causal result of the end section 16 being pushed into the side channels 13, let alone of the construction of connectors suitable for achieving such a "single-step" connection.

In stark contrast to the solar power module of Napoli, applicants' claimed embodiment includes a solar tile assembly wherein "bringing together the outer panel and the inner support structure *causes* the first electrical connector and the second electrical connector to be brought together into an electrical connection," as recited in Claim 1 and as similarly recited in Claims 14 and 15. [Emphasis added.] Such a "causal connection" is simply not disclosed in Napoli as discussed above.

Further, applicants additionally note that Claims 1, 14, and 15 all mention a removable solar tile/removable outer panel. The electrical connection which is made in the arrangement of Napoli subsequent to the end section 16 being inserted into the side channels 13 is a permanent electrical connection. The panel 11 is not intended to be readily removed from the assembly, otherwise damage would result to the leads and the connectors of the bus bar 19. Col. 3, lines 24-26, of Napoli refer to the leads being "potted" or "encapsulated" in a connected condition. By such a process, the electrical connection formed is a permanent one which is not intended to be readily broken and then re-made, as is the case with applicants' claimed embodiments.

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Under 35 U.S.C. § 102(b), a claim is anticipated only if each and every element, as set forth in the claims, is found in the cited and applied reference. *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 631 (Fed. Cir. 1997). For at least the above reasons, applicants submit that all the elements of Claims 1, 14, and 15 are not taught by Napoli. Accordingly, applicants respectfully request that the Examiner withdraw the 35 U.S.C. § 102(b) rejection of Claims 1, 14, and 15 and the claims that depend therefrom.

III. Rejection of Claim 8 Under 35 U.S.C. § 103(a)

Claim 8, which depends from Claim 1, was rejected under 35 U.S.C. § 103(a) as being unpatentable over Napoli in light of the knowledge of one ordinary skilled in the art. Applicants respectfully disagree. Applicants agree with the Examiner that Napoli does not disclose the solar assembly which is attached to the outer surface of the structure such as a building, or independent support structure inside or outside the building. Applicants further submit that Napoli does not teach a solar tile assembly wherein "bringing together the outer panel and the inner support structure *causes* the first electrical connector and the second electrical connector to be brought together into an electrical connection" as recited in Claim 1, from which Claim 8 depends, as argued above.

Inasmuch as all elements of Claim 8 are not taught or suggested by Napoli in light of the knowledge of one skilled in the art, applicants submit that the rejection of Claim 8 should be withdrawn.

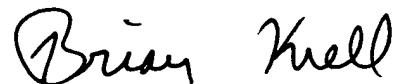
CONCLUSION

In view of the foregoing remarks and amendments, applicants respectfully submit that the present application is in condition for allowance. Reconsideration and reexamination of the application, as amended, and allowance of the claims at an early date is solicited. If the

Examiner has any questions or comments concerning this matter, the Examiner is invited to contact applicants' undersigned attorney at the number below.

Respectfully submitted,

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## AMENDMENTS TO THE SPECIFICATION

Please amend the paragraph beginning on page 1, line 14, to read as follows:

According to a first aspect of the present invention there is provided a solar tile assembly comprising a removable outer panel that comprises photovoltaic means and a first electrical connector, and an inner support structure that comprises a second electrical connector, the arrangement being such that, in use, bringing together the outer panel and the inner support structure causes the first electrical connector and the second electrical connector to be brought together into an electrical connection between said first electrical connector and said second electrical connector. ~~that in use an electrical connection between the first electrical connector and the second electrical connector is achieved by bringing together the outer panel and the inner support structure.~~

Please amend the paragraph beginning on page 3, line 19, to read as follows:

According to a second aspect of the present invention there is provided a removable solar tile comprising photovoltaic means and an electrical connector, the arrangement being such that, in use, bringing the solar tile together with an inner support structure causes the first electrical connector and a second electrical connector of the inner support structure to be brought together into an electrical connection between said first electrical connector and said second electrical connector. ~~that in use an electrical connection between the electrical connector of the removable solar tile and a second electrical connector of an inner support structure is achieved by the bringing together of the outer panel and the inner support structure.~~

Please amend the paragraph beginning on page 4, line 1, to read as follows:

According to a third aspect of the present invention there is provided an inner support structure for a removable tile comprising photovoltaic means, the inner support structure comprising an electrical connector, the arrangement being such that, in use, bringing the removable tile together with the inner support structure causes the electrical connector of the inner support structure and the electrical connector of the removable tile to be brought together into an electrical connection between said electrical connectors. ~~that in use an electrical connection between the electrical connector of the inner support structure and an electrical connector of the removable tile is achieved by the bringing together of the removable tile and the inner support structure.~~

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### AMENDMENTS TO THE CLAIMS

1. (Currently amended) A solar tile assembly comprising a removable outer panel that comprises photovoltaic means and a first electrical connector, and an inner support structure that comprises a second electrical connector, the arrangement assembly being such that, in use, bringing together the outer panel and the inner support structure causes the first electrical connector and the second electrical connector to be brought together into an electrical connection between said first electrical connector and said second electrical connector. an electrical connection between the first electrical connector and the second electrical connector is achieved by bringing together the outer panel and the inner support structure.
2. (Original) A solar tile assembly as claimed in Claim 1, wherein the electrical connection between the first electrical connector and the second electrical connector is broken by the removal of the outer panel from the inner support structure.
3. (Previously presented) A solar tile assembly as claimed in Claim 1 or Claim 2, wherein the outer panel is slidably attached to the inner support structure by attachment means comprising a channel section formed to receive an attachment element.
4. (Previously presented) A solar tile assembly as claimed in Claim 3, wherein the outer panel comprises the attachment element and the inner support structure is formed with the channel for receiving and retaining the attachment element of the outer panel.
5. (Previously presented) A solar tile assembly as claimed in Claim 3, wherein the outer panel comprises a pair of attachment elements and the inner support structure is formed with a pair of channels for receiving and retaining the attachment elements of the outer panel.
6. (Original) A solar tile assembly as claimed in Claim 1, wherein the electrical connection between the first electrical connector and the second electrical connector is broken by

sliding the outer panel in a direction that is substantially parallel to plane of outermost surface of the outer panel.

7. (Currently amended) A solar tile assembly as claimed in Claim 1, wherein the outer panel is removed from the inner support structure, by first sliding the outer panel in a direction that is substantially parallel to a plane of the outermost surface of the outer panel and then lifting the outer panel in a direction perpendicular to the direction of the slide direction.

8. (Previously presented) A solar tile assembly as claimed in Claim 1, wherein, in use, the inner support structure can be attached to the outer surface of a structure such as a building or attached to an independent support structure inside or outside a building.

9. (Previously presented) A solar tile assembly as claimed in Claim 1, wherein the inner support structure comprises an electrical junction box that comprises the second electrical connector.

10. (Previously presented) A solar tile assembly as claimed in Claim 9, wherein the electrical junction box of the inner support structure comprises an electrical input terminal and an electrical output terminal, the arrangement being such that the electrical input terminal and the electrical output terminal provide electrical communication between corresponding solar tile assemblies.

11. (Original) A solar tile assembly as claimed in Claim 9 or Claim 10, wherein the outer panel comprises an electrical junction box formed with the first electrical connector, the arrangement being such that in the assembled state of the solar tile assembly the first connector and the second connector provide electrical communication between the two electrical junction boxes.

12. (Previously presented) A solar tile assembly as claimed in Claim 1, wherein the support structure comprises means for providing electrical connections between adjacent solar tile assemblies.

13. (Previously presented) A solar tile assembly as claimed in Claim 12, wherein the means for providing electrical connections between adjacent solar tile assemblies comprises an electrical connector on opposite sides of the support structure.

14. (Currently amended) A removable solar tile comprising photovoltaic means and [[an]] a first electrical connector, the tile being such that, in use, bringing the solar tile together with an inner support structure causes the first electrical connector and a second electrical connector of the inner support structure to be brought together into an electrical connection between said first electrical connector and said second electrical connector. arrangement being such that in use an electrical connection between the electrical connector of the removable solar tile and a second electrical connector of an inner support structure is achieved by bringing together the removable solar tile and the inner support structure.

15. (Currently amended) An inner support structure for a removable tile that comprises photovoltaic means, the inner support structure comprising an electrical connector, the arrangement inner support structure being such that, in use, bringing the removable tile together with the inner support structure causes the electrical connector of the inner support structure and an electrical connector of the removable tile to be brought together into an electrical connection between said electrical connectors. an electrical connection between the electrical connector of the inner support structure and an electrical connector of the removable tile is achieved by bringing together the removable tile and the inner support structure.

16. (Previously presented) A method for providing an electrical connection for a solar tile assembly comprising a removable outer panel that comprises photovoltaic means and a

first electrical connector, and an inner support structure that comprises a second electrical connector, the method comprising sliding the outer panel towards the inner support structure in a direction substantially parallel to the plane of the outer panel until the first electrical connector contacts the second electrical connector.

17. (New) A solar tile assembly as claimed in Claim 1, in which the first electrical connector and the second electrical connector are arranged to be brought together into an electrical connection by way of a sliding movement.

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